DOCUMENT RESUME

ED 292 628 SE 048 971

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TITLE Using Knowledge To Build Knowledge: The Thematic Approach to Content Reading.
INSTITUTION North Dakota Univ., Grand Forks. Center for Teaching and Learning.
PUB DATE Apr 88
NOTE 11p.
AVAILABLE FROM INSIGHTS, Center for Teaching and Learning, Box 8158, University of North Dakota, Grand Forks, ND 58202 ($3.50 per subscription).
PUB TYPE Guides - Classroom Use - Guides (For Teachers) (052) -- Reports - Descriptive (141)
JOURNAL CIT Insights; v20 n7 Apr 1988

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Cloze Procedure; *Content Area Reading; *Elementary School Science; Elementary Secondary Education; Junior High Schools; Middle Schools; *Reading Comprehension; *Reading Improvement; *Reading Skills; *Reading Strategies; Science Education; Secondary School Science

ABSTRACT

Children who have difficulty reading content materials are sometimes found to read fiction quite well. These children may not have the conceptual knowledge they need to relate the text material to their own lives. Children may experience difficulty reading content texts because they do not actively try to relate to and build knowledge from one situation to the next. Because of the shallow presentation and disorganization of content in some texts, children are required to make inferences and contribute all the meaning. This themed approach helps address these concerns in that it builds the learner's background for the print by giving real experiences which capture the child's interest in learning, facilitates independence in learning and active involvement, and provides well written texts. This approach also uses a variety of materials and activities to develop skills, strategies, and interest in reading. These include charts, poems, recipes, and games. An example of such an approach is included. Strategies and activities demonstrated are: (1) a cloze activity; (2) charting questions; (3) reading strategies; (4) non-print resources; (5) semantic webbing; and (6) a recipe. All involving a unit on bats as an example. Activities stress that readers need to use the semantic, syntactic, and graphophonic cueing systems in a balanced and effective way. Risk taking, like effective use of strategies, is modeled, guided, and reinforced whenever possible. (CW)

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CENTER FOR TEACHING AND LEARNING
UNIVERSITY OF NORTH DAKOTA
GRAND FORKS 58202

Volume 20, Number 7
April 1988

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by

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ED292628

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Using Knowledge to Build Knowledge: The Thematic Approach to Content Reading

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Every year children who are experiencing difficulty with reading are referred to me. When I assess them in reading I find that they actually read fiction quite well; however, when reading content materials they seem to have many more problems.

First, the children may not have the conceptual knowledge they need to relate the text material to their own lives. The text alone cannot provide the necessary authentic experiences. For learning to take place children must use knowledge to build knowledge (Piaget, 1952; Smith, 1978; Weaver, 1980). This means that to learn about bats, they have to know something about bats and then build on that knowledge with reading.

Secondly, children may experience difficulty reading content texts because they do not actively try to relate and build knowledge from one situation to the next. Often, these children become passive, allowing teachers and parents to do all their thinking for them. When children do not take ownership and control of their own thinking, it is very difficult to then build conceptual knowledge through reading.

Thirdly, textbooks leave all the learning up to the child. Because of the shallow presentation and disorganization of content in textbooks, children are required to make inferences and contribute all the meaning. If students do not have the necessary background and are also not independent learners, these kinds of content information textbooks present many difficulties.

A themed approach has helped me because it addresses these three concerns: 1) it builds the learner's background for the print by giving real experiences which capture the child's interest in learning; 2) it facilitates independence in learning and active involvement; and 3) it provides well-written texts (i.e., children's literature, trade books). It also provides encounters with a variety of print on the topics. Students, then, have more than one chance to build meaning using a variety of formats.

When I develop a themed unit, I develop the children's background before reading. I encourage the children to use effective strategies

when dealing with the print, and I work with meaning after the children have read the texts. I also try to use a variety of materials and activities to develop skills, strategies and interest in reading. These include chants, poems, fiction and non-fiction books, recipes and games. It is important that the print resources for a theme should contain materials written at a variety of levels in order to meet the needs of individual students.

A Thematic Unit on Bats

The activities, materials and strategies which I developed for a third-grade unit on bats are described in the rest of this paper. Although I used this unit successfully last fall with my third graders, it is important to keep in mind that the activities, materials and strategies would need to be changed in response to the different needs of other students.

A Cloze Activity

A cloze activity is effective in activating the learner's knowledge. It is a good introduction to a unit because it encourages students to draw on the knowledge they already possess. This particular cloze activity on bats helped my students reflect on what they already knew about mammals. In addition, a cloze activity provides basic information and vocabulary on a given topic while it simultaneously provides an opportunity for students to consciously use the context of a text to confirm or disconfirm predictions.

I began this activity by presenting the passage on an overhead projector. (See the passage below.) As I uncovered the textual information, paragraph by paragraph, the students made initial predictions, then continued their reading, eventually confirming/correcting their predictions as they gathered additional facts. Students had to support their predictions using their own background information as well as the information given by the author.

My Chimney Creature

_____ *come in various sizes. The smallest can weigh just a couple ounces and have a wingspan of about five inches. The largest* _____ *can have a wingspan of as much as five feet.*

*[**NOTE:** Students often predict owl, eagle, dragonfly or flying squirrel.]*

Although _____ *spend a lot of time flying, they are very different from birds. Their bodies are covered with fur instead of feathers. Their wings are covered with thin skin.*

*[**NOTE:** We now confirm dragonfly because of the "fur" clue. We eliminate owl and eagle because of the same clue. Students predict flying squirrel once again.]*

All _____ belong to a group of animals called mammals. The young do not hatch from eggs but are born alive like puppies and kittens. While they are young, their mothers feed them with milk.

*[**NOTE:** We can confirm flying squirrel as it is a mammal. For the same reason, we will eliminate dragonfly. New prediction: bat.]*

As _____ differ in size and appearance, so does their diet differ. Many _____ who live in North Dakota live on a diet of insects. Others feed on nectar from flowers, birds, rodents, other _____ and blood. After eating its fill, the _____ will fly back to roost and hang in an upside down position to digest its food.

*[**NOTE:** Many students can now predict "bats"!]*

THE EXPRESSION "BLIND AS A BAT" COMES FROM THIS ANIMAL!!!!!

*[**NOTE:** Our confirmation is finalized. Eliminate flying squirrel--blindness clue.]*

Charting Questions About Bats

It is important that students have a purpose for and interest in reading a given text. Purpose and motivation for reading are tied to students' current knowledge and their search for knowledge. To help my students continue to figure out what they already knew about bats and to help them figure out what they wanted to know about bats through reading, we observed a real brown bat stored in a jar of formaldehyde in my classroom. We took the bat out of the solution and examined it thoroughly. When discussing features of the bat, I used vocabulary and concepts which I knew they would encounter in the print (i.e., "Notice the elasticity of the wings," "Do you suppose bats are nocturnal like the owl?" and "Is a bat a mammal? It looks like it has hair..."). I informally facilitated a brainstorming session on bats.

We then charted the information into two categories: WHAT WE KNOW ABOUT BATS and WHAT WE WANT TO KNOW ABOUT BATS. The chart produced by my class is reproduced below. The students' knowledge and questions were charted with their names to encourage ownership in their discovery of information. It also motivated an interest in reading.

WHAT I KNOW ABOUT BATS:

1. *Bats have wings. (Jenny)*
2. *Bats can fly. (John)*
3. *A bat is a bird. (Jodi)*
4. *Bats can hang upside down. (Tim)*

WHAT I WANT TO KNOW ABOUT BATS:

1. *Do bats suck your blood? (Chad)*
2. *Why do bats hang upside down? (Tom)*
3. *Do vampire bats live in North Dakota? (Cliff)*
4. *Are mammals vertebrates? (Mrs. B.)*
5. *What's a vertebrate? (Jenny)*

The discussion of the bat and the charting of information set the stage for student success in the reading which subsequently followed.

Factual information was not specifically taught; rather, students had some natural exposure to key concepts and highly motivational information gleaned through observation and discussion. Questions which would later be confirmed in print were raised, thus helping to guide students' purposes for reading. In addition, this activity gave me the opportunity to assess each student's current knowledge in this area. If I had felt that students needed more background knowledge to be able to read, I would have developed some additional activities.

Applying Strategies While Reading About Bats

On the day of the actual reading, I reviewed the information which we had charted. By either confirming or correcting what we already knew about bats or searching for questions the group had raised about bats, the children had a natural purpose for reading. As we read, I modeled what we do when we encounter a difficult word (i.e., reading on for more clues, making a best guess which is later confirmed or disconfirmed). I verbalized this process, stating exactly what we were doing to get meaning from the print, including identification of the clues we were using. My focus here was to reinforce the contextual clues in word identification.

As the students read books in partners or as a group, they were guided to use their background information, picture clues and the strategies I had modeled. At times, I took portions of an informational text and reproduced a section in enlarged format so that students could focus explicitly on both the features of a particular text and on the strategies they needed to use to build meaning. This selection was enlarged not only for its informational qualities but because of the pattern inherent to the print. This pattern helped the students trust the print because of its underlying structure which encouraged risk-taking and prediction.

A dark brown web of double skin str___ over the bones of his long arms and fingers.

It is like an umbrella cover on a fr___.

This makes the two wide wings.

These wings are joined to the sides of his body and to his hind legs and tail.

The wingspread is about seven inches.

After enlarging the print and making a transparency, I entirely covered several words in the text, creating a "cloze" activity. The students read the text, predicting what the covered words would be. It was emphasized that their predictions must make sense. After making their predictions, the students were given an additional clue --a graphophonic clue in the initial position (i.e., "str" or "fr"). Predictions were confirmed by then uncovering the entire word.

I was careful to delete words which could be identified with clues found in the following context. At times the students tended to use "blank" and not return to the unknown word. Through the support in this text I was able to model the use of following context as a functional strategy in word identification.

In many instances, the students suggested synonyms for the unknown word. While recognizing that they were demanding meaning and that synonym substitution was an effective strategy to use, I also reinforced the notion that readers must sample the graphophonic cues as part of the reading process (i.e., pay attention to the "str" or "fr"). For those students who totally ignored the graphophonic cues, I used this opportunity to have them focus more on the print. I am always careful, however, to keep meaning as the primary focus, using graphophonic sampling to support meaningful choices.

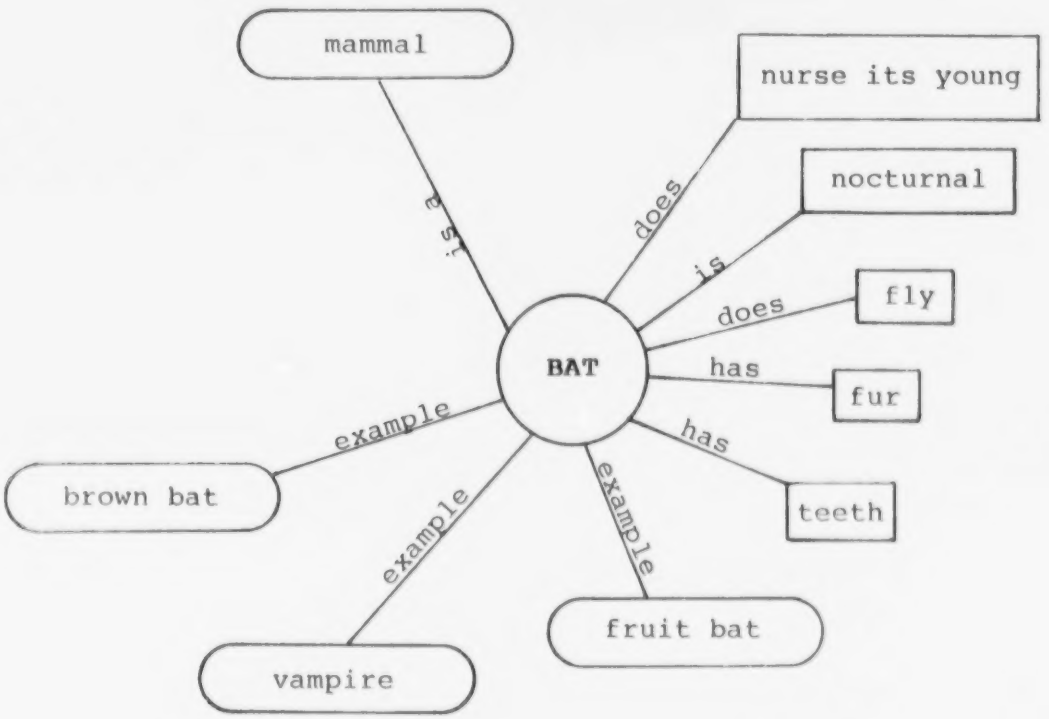
I felt that this kind of reading activity served two purposes. Students corrected or confirmed their existing knowledge about bats. They also learned more about strategies readers use while reading.

Using Non-Print Resources to Build Knowledge

Films are an important vehicle for presenting factual information to students. In order to help students continue to build their knowledge about bats so that they could read texts independently, I showed them a film. As the film was viewed, I stopped at those points where the students had questions or comments. The students expanded, deleted or modified information that had been charted during our previous information gathering session. I encouraged the notion that ideas change as new information is learned. After the meaning was completed, we discussed what new information we had learned. This information was then recorded on the initial chart we had constructed. The added charting became the visible growth of information in the unit.

Semantic Webbing

It is important to provide students with as many avenues to make conceptual connections as possible. Pearson and Johnson (1978) talk of semantic webbing as a way to help children visually see how information can be organized. When children see the information organized into categories, they are frequently able to generate new ideas and also read with new purposes. Using chart paper, I worked together with the students to place the information we had gathered from our reading into a visual pattern. The bat information was organized into three broad categories: "is a," "has, is or does" and examples (see example next page).



Recipes

The making of Edible Bat Wings is one of the final unit activities. The reading of recipes provides a varied, but purposeful, print format for students. In order to make Halloween treats for a party, students have to be able to read the recipe. In addition, students continue to receive more experience in reading about and using concepts they have learned in the unit. The bat wings recipe is found below.

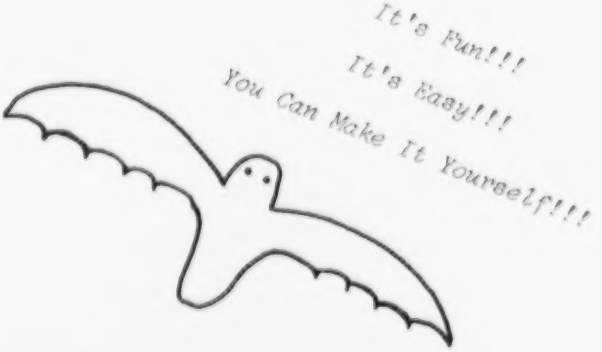
Bat Wings

Ingredients

Almond bark squares
Stick pretzels
Wax paper

Utensils

Hot plate
Medium-sized kettle
Large spoon



Directions

You need to research bats carefully. Being a mammal is not their only similarity to humans. Even though their wings resemble the bird family, the actual appearance of the wing resembles the human hand. Use the pretzel sticks to form the skeleton structure of the wing. Pour melted almond bark over your skeleton structure to represent the elastic membrane. Let the wings cool. After they harden, enjoy your treat with a flighty friend.

Conclusion

A thematic approach to content reading works well with students who are experiencing difficulty reading non-fictional texts. The activities and materials build on the reader's strengths, drawing on what the reader brings to the print (i.e., background concepts and vocabulary) and extending that knowledge through meaningful interaction with written and oral language. Efficient use of strategies while reading is modeled, guided and encouraged. Activities stress that readers need to use the semantic, syntactic and graphophonic cueing systems in a balanced and effective way. An atmosphere of risk-taking is also encouraged. Risk-taking, like effective use of strategies, is modeled, guided and reinforced whenever possible. Students need to make sense out of print, even when they feel unsure. All teaching techniques and materials support the reader. Through this support, children develop confidence in themselves as readers and learning is extended, not controlled. Because learning is meaningful, it is also self-motivating.

The techniques and activities that I have described are in no way specific only to a unit about bats. They can be used in the development of any theme. It is important to move beyond the exclusive use of a textbook when teaching children concepts and vocabulary. A thematic unit is an approach which actively involves students in their own learning and reading.

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INTRODUCING A NEW MONOGRAPH

BY THE

NORTH DAKOTA STUDY GROUP

Between Feeling and Fact

by

Brenda Engel

"Between Feeling and Fact originated as a project of the Curriculum Subcommittee of Educators for Social Responsibility. At first we intended only to collect and look with care at work by children below high school age, work which had some reference to the subject of nuclear war--pictures, writings and, if possible, recorded discussions--to see what they suggested about the children's thoughts and feelings. When we started there were surprisingly few findings from research on children's anxiety about the nuclear threat. Over the last several years, there have been more. Most, however, have been quantitative and/or "head on"; that is, the result of questionnaires and interviews more or less directly aimed at soliciting information on the subject of interest ("What does the word 'nuclear' remind you of?"). . . .

"The children's work informing this book is a focused selection. We have considered only compositions, drawings, or conversations that made reference to war. We do not know, even roughly, how many children are thinking about these matters or how much of the time they do it. For the work we have selected, though, we make two claims for validity: the repetition of characteristic themes and their recognizability to us as ex-children. Certain images recur, over and over--escape to another planet, for example, sci-fi utopias depicted in both words and pictures--and the mere fact of their repetition gives us a sense of their importance, even urgency. Our vivid memories of the elaborate forts, hideaways, romantic landscapes of our own childhoods enable us to understand the impulse behind these inventions in their traditional and contemporary settings." (Excerpt from the Introduction to *Between Feeling and Fact*, pp. 6 and 7)

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INSIGHTS is published eight times during the academic year by the Center for Teaching and Learning, University of North Dakota.

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